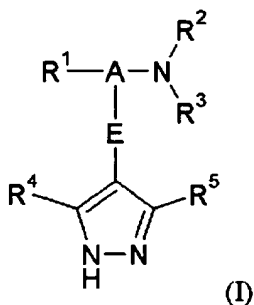


CLAIMS

1. A compound of the formula (I):



or a salt, solvate, tautomer or N-oxide thereof;

- 5 wherein A is a saturated hydrocarbon linker group containing from 1 to 7 carbon atoms, the linker group having a maximum chain length of 5 atoms extending between R<sup>1</sup> and NR<sup>2</sup>R<sup>3</sup> and a maximum chain length of 4 atoms extending between E and NR<sup>2</sup>R<sup>3</sup>, wherein one of the carbon atoms in the linker group may optionally be replaced by an oxygen or nitrogen atom; and
- 10 wherein the carbon atoms of the linker group A may optionally bear one or more substituents selected from oxo, fluorine and hydroxy, provided that the hydroxy group when present is not located at a carbon atom  $\alpha$  with respect to the NR<sup>2</sup>R<sup>3</sup> group and provided that the oxo group when present is located at a carbon atom  $\alpha$  with respect to the NR<sup>2</sup>R<sup>3</sup> group;

- 15 E is a monocyclic or bicyclic carbocyclic or heterocyclic group;  
 R<sup>1</sup> is an aryl or heteroaryl group;  
 R<sup>2</sup> and R<sup>3</sup> are independently selected from hydrogen, C<sub>1-4</sub> hydrocarbyl and C<sub>1-4</sub> acyl wherein the hydrocarbyl and acyl moieties are optionally substituted by one or more substituents selected from fluorine, hydroxy, amino, methylamino, dimethylamino and methoxy;
- 20

or R<sup>2</sup> and R<sup>3</sup> together with the nitrogen atom to which they are attached form a cyclic group selected from an imidazole group and a saturated monocyclic heterocyclic group having 4-7 ring members and

optionally containing a second heteroatom ring member selected from O and N;

or one of R<sup>2</sup> and R<sup>3</sup> together with the nitrogen atom to which they are attached and one or more atoms from the linker group A form a saturated monocyclic heterocyclic group having 4-7 ring members and optionally containing a second heteroatom ring member selected from O and N;

or NR<sup>2</sup>R<sup>3</sup> and the carbon atom of linker group A to which it is attached together form a cyano group;

R<sup>4</sup> is selected from hydrogen, halogen, C<sub>1-5</sub> saturated hydrocarbyl, C<sub>1-5</sub> saturated hydrocarbyloxy, cyano, and CF<sub>3</sub>; and

R<sup>5</sup> is selected from hydrogen, halogen, C<sub>1-5</sub> saturated hydrocarbyl, C<sub>1-5</sub> saturated hydrocarbyloxy, cyano, CONH<sub>2</sub>, CONHR<sup>9</sup>, CF<sub>3</sub>, NH<sub>2</sub>, NHCOR<sup>9</sup> or NHCONHR<sup>9</sup>;

R<sup>9</sup> is a group R<sup>9a</sup> or (CH<sub>2</sub>)R<sup>9a</sup>, wherein R<sup>9a</sup> is a monocyclic or bicyclic group which may be carbocyclic or heterocyclic;

the carbocyclic group or heterocyclic group R<sup>9a</sup> being optionally substituted by one or more substituents selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, mono- or di-C<sub>1-4</sub>

hydrocarbylamino; a group R<sup>a</sup>-R<sup>b</sup> wherein R<sup>a</sup> is a bond, O, CO, X<sup>1</sup>C(X<sup>2</sup>), C(X<sup>2</sup>)X<sup>1</sup>, X<sup>1</sup>C(X<sup>2</sup>)X<sup>1</sup>, S, SO, SO<sub>2</sub>, NR<sup>c</sup>, SO<sub>2</sub>NR<sup>c</sup> or NR<sup>c</sup>SO<sub>2</sub>; and R<sup>b</sup> is

selected from hydrogen, heterocyclic groups having from 3 to 12 ring members, and a C<sub>1-8</sub> hydrocarbyl group optionally substituted by one or

more substituents selected from hydroxy, oxo, halogen, cyano, nitro,

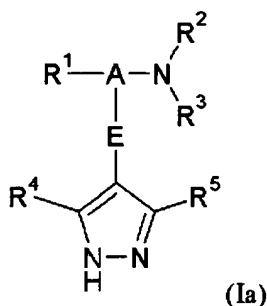
carboxy, amino, mono- or di-C<sub>1-4</sub> hydrocarbylamino, carbocyclic and

heterocyclic groups having from 3 to 12 ring members and wherein one or more carbon atoms of the C<sub>1-8</sub> hydrocarbyl group may optionally be replaced by O, S, SO, SO<sub>2</sub>, NR<sup>c</sup>, X<sup>1</sup>C(X<sup>2</sup>), C(X<sup>2</sup>)X<sup>1</sup> or X<sup>1</sup>C(X<sup>2</sup>)X<sup>1</sup>;

R<sup>c</sup> is selected from hydrogen and C<sub>1-4</sub> hydrocarbyl; and

X<sup>1</sup> is O, S or NR<sup>c</sup> and X<sup>2</sup> is =O, =S or =NR<sup>c</sup>.

2. A compound according to claim 1 of the formula (Ia):



or a salt, solvate, tautomer or N-oxide thereof;

wherein A is a saturated hydrocarbon linker group containing from 1 to 7 carbon atoms, the linker group having a maximum chain length of 5 atoms extending between R<sup>1</sup> and NR<sup>2</sup>R<sup>3</sup> and a maximum chain length of 4 atoms extending between E and NR<sup>2</sup>R<sup>3</sup>, wherein one of the carbon atoms in the linker group may optionally be replaced by an oxygen or nitrogen atom; and wherein the carbon atoms of the linker group A may optionally bear one or more substituents selected from oxo, fluorine and hydroxy, provided that the hydroxy group when present is not located at a carbon atom  $\alpha$  with respect to the NR<sup>2</sup>R<sup>3</sup> group and provided that the oxo group when present is located at a carbon atom  $\alpha$  with respect to the NR<sup>2</sup>R<sup>3</sup> group;

E is a monocyclic or bicyclic carbocyclic or heterocyclic group;

R<sup>1</sup> is an aryl or heteroaryl group;

R<sup>2</sup> and R<sup>3</sup> are independently selected from hydrogen, C<sub>1-4</sub> hydrocarbyl and C<sub>1-4</sub> acyl;

or R<sup>2</sup> and R<sup>3</sup> together with the nitrogen atom to which they are attached form a saturated monocyclic heterocyclic group having 4-7 ring members and optionally containing a second heteroatom ring member selected from O and N;

or one of R<sup>2</sup> and R<sup>3</sup> together with the nitrogen atom to which they are attached and one or more atoms from the linker group A form a saturated monocyclic heterocyclic group having 4-7 ring members and optionally containing a second heteroatom ring member selected from O and N;

or  $\text{NR}^2\text{R}^3$  and the carbon atom of linker group A to which it is attached together form a cyano group;

$\text{R}^4$  is selected from hydrogen, halogen,  $\text{C}_{1-5}$  saturated hydrocarbyl, cyano and  $\text{CF}_3$ ; and

5  $\text{R}^5$  is selected from hydrogen, halogen,  $\text{C}_{1-5}$  saturated hydrocarbyl, cyano,  $\text{CONH}_2$ ,  $\text{CONHR}^9$ ,  $\text{CF}_3$ ,  $\text{NH}_2$ ,  $\text{NHCOR}^9$  or  $\text{NHCONHR}^9$ ;

$\text{R}^9$  is phenyl or benzyl each optionally substituted by one or more substituents selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, mono- or di- $\text{C}_{1-4}$  hydrocarbylamino; a group  $\text{R}^a\text{-R}^b$  wherein  
10  $\text{R}^a$  is a bond, O, CO,  $\text{X}^1\text{C}(\text{X}^2)$ ,  $\text{C}(\text{X}^2)\text{X}^1$ ,  $\text{X}^1\text{C}(\text{X}^2)\text{X}^1$ , S, SO,  $\text{SO}_2$ ,  $\text{NR}^c$ ,  $\text{SO}_2\text{NR}^c$  or  $\text{NR}^c\text{SO}_2$ ; and  $\text{R}^b$  is selected from hydrogen, heterocyclic groups having from 3 to 12 ring members, and a  $\text{C}_{1-8}$  hydrocarbyl group optionally substituted by one or more substituents selected from hydroxy, oxo,  
15 halogen, cyano, nitro, carboxy, amino, mono- or di- $\text{C}_{1-4}$  hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members and wherein one or more carbon atoms of the  $\text{C}_{1-8}$  hydrocarbyl group may optionally be replaced by O, S, SO,  $\text{SO}_2$ ,  $\text{NR}^c$ ,  $\text{X}^1\text{C}(\text{X}^2)$ ,  $\text{C}(\text{X}^2)\text{X}^1$  or  $\text{X}^1\text{C}(\text{X}^2)\text{X}^1$ ;

$\text{R}^c$  is selected from hydrogen and  $\text{C}_{1-4}$  hydrocarbyl; and

20  $\text{X}^1$  is O, S or  $\text{NR}^c$  and  $\text{X}^2$  is =O, =S or = $\text{NR}^c$ .

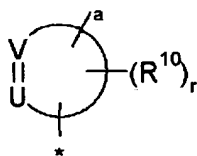
3. A compound according to claim 1 or claim 2 wherein A is a saturated hydrocarbon linker group containing from 1 to 7 carbon atoms, the linker group having a maximum chain length of 5 atoms extending between  $\text{R}^1$  and  $\text{NR}^2\text{R}^3$  and a maximum chain length of 4 atoms extending between E and  $\text{NR}^2\text{R}^3$ , wherein one of the carbon atoms in the linker group may optionally  
25 be replaced by an oxygen or nitrogen atom; and wherein the carbon atoms of the linker group A may optionally bear one or more substituents selected from fluorine and hydroxy, provided that the hydroxy group when present is not located at a carbon atom  $\alpha$  with respect to the  $\text{NR}^2\text{R}^3$  group; and  
30  $\text{R}^5$  is selected from selected from hydrogen, halogen,  $\text{C}_{1-5}$  saturated hydrocarbyl, cyano,  $\text{CONH}_2$ ,  $\text{CF}_3$ ,  $\text{NH}_2$ ,  $\text{NHCOR}^9$  and  $\text{NHCONHR}^9$ .

4. A compound according to any one of claims 1 to 3 wherein the linker group A has a maximum chain length of 3 atoms (more preferably 1 or 2 atoms, and most preferably 2 atoms) extending between  $R^1$  and  $NR^2R^3$ .
5. A compound according to any one of claims 1 to 4 wherein the linker group A has a maximum chain length of 3 atoms extending between E and  $NR^2R^3$ .
6. A compound according to claim 5 wherein the linker group A has a chain length of 2 or 3 atoms extending between  $R^1$  and  $NR^2R^3$  and a chain length of 2 or 3 atoms extending between E and  $NR^2R^3$ .
7. A compound according to any one of the preceding claims wherein the linker group atom linked directly to the group E is a carbon atom and the linker group A has an all-carbon skeleton.
8. A compound according to any one of claims 1 to 6 wherein the portion  $R^1$ -A- $NR^2R^3$  of the compound is represented by the formula  $R^1-(G)_k-(CH_2)_m-W-O_b-(CH_2)_n-(CR^6R^7)_p-NR^2R^3$  wherein G is NH, NMe or O; W is attached to the group E and is selected from  $(CH_2)_j-CR^{20}$ ,  $(CH_2)_j-N$  and  $(NH)_j-CH$ ; b is 0 or 1, j is 0 or 1, k is 0 or 1, m is 0 or 1, n is 0, 1, 2, or 3 and p is 0 or 1; the sum of b and k is 0 or 1; the sum of j, k, m, n and p does not exceed 4;  $R^6$  and  $R^7$  are the same or different and are selected from methyl and ethyl, or  $CR^6R^7$  forms a cyclopropyl group; and  $R^{20}$  is selected from hydrogen, methyl, hydroxy and fluorine.
9. A compound according to any one of claims 1 to 6 wherein the moiety  $R^1$ -A- $NR^2R^3$  is represented by the formula  $R^1-(G)_k-(CH_2)_m-X-(CH_2)_n-(CR^6R^7)_p-NR^2R^3$  wherein G is NH, NMe or O; X is attached to the group E and is selected from  $(CH_2)_j-CH$ ,  $(CH_2)_j-N$  and  $(NH)_j-CH$ ; j is 0 or 1, k is 0 or 1, m is 0 or 1, n is 0, 1, 2, or 3 and p is 0 or 1, and the sum of j, k, m, n and p does not exceed 4; and  $R^6$  and  $R^7$  are the same or different and are selected from methyl and ethyl, or  $CR^6R^7$  forms a cyclopropyl group.

10. A compound according to claim 9 wherein k is 0, m is 0 or 1, n is 0, 1,2 or 3 and p is 0.
11. A compound according to claim 9 wherein k is 0, m is 0 or 1, n is 0, 1 or 2 and p is 1.
- 5 12. A compound according to claim 9 wherein X is  $(\text{CH}_2)_j\text{-CH}$ , k is 1, m is 0, n is 0, 1,2 or 3 and p is 0.
13. A compound according to claim 9 wherein X is  $(\text{CH}_2)_j\text{-CH}$ , k is 1, m is 0, n is 0, 1 or 2 and p is 1.
14. A compound according to any one of claims 9, 12 and 13 wherein j is 0.
- 10 15. A compound according to any one of claims 9, 12 and 13 wherein j is 1.
16. A compound according to any one of claims 9, 12 and 13 wherein  $\text{CR}^6\text{R}^7$  is  $\text{C}(\text{CH}_3)_2$ .
17. A compound according to claim 9 wherein the portion  $\text{R}^1\text{-A-NR}^2\text{R}^3$  of the compound is represented by the formula  $\text{R}^1\text{-X-(CH}_2)_n\text{-NR}^2\text{R}^3$  where X is attached to the group E and is a group  $\text{CH}$ , and n is 2.
- 15 18. A compound according to claim 1 or claim 2 wherein  $\text{R}^1\text{-A(E)-NR}^2\text{R}^3$  is a group selected from the groups A1 to A11 set out in Table 1 herein.
19. A compound according to claim 18 wherein  $\text{R}^1\text{-A(E)-NR}^2\text{R}^3$  is selected from groups A1, A2, A3 and A10 in Table 1.
- 20 20. A compound according to claim 19 wherein  $\text{R}^1\text{-A(E)-NR}^2\text{R}^3$  is the group A10 in Table 1.
21. A compound according to any one of the preceding claims wherein E is a monocyclic group.

22. A compound according to any one of the preceding claims wherein E is an aryl or heteroaryl group.
23. A compound according to claim 22 wherein E is selected from optionally substituted phenyl, thiophene, furan, pyrimidine and pyridine groups.
- 5 24. A compound according to claim 23 wherein E is a phenyl group.
25. A compound according to any one of claims 1 to 21 wherein E is a non-aromatic monocyclic group selected from cycloalkanes such as cyclohexane and cyclopentane, and nitrogen-containing rings such as piperazine and piperazone.
- 10 26. A compound according to any one of the preceding claims wherein the group A and the pyrazole group are attached to the group E in a *meta* or *para* relative orientation; i.e. A and the pyrazole group are not attached to adjacent ring members of the group E.
- 15 27. A compound according to claim 26 wherein E is selected from 1,4-phenylene, 1,3-phenylene, 2,5-pyridylene and 2,4-pyridylene, 1,4-piperazinyl, and 1,4-piperazonyl.
- 20 28. A compound according to any one of the preceding claims wherein E is unsubstituted or has up to 4 substituents R<sup>8</sup> selected from hydroxy, oxo (when E is non-aromatic), chlorine, bromine, trifluoromethyl, cyano, C<sub>1-4</sub> hydrocarbyloxy and C<sub>1-4</sub> hydrocarbyl optionally substituted by C<sub>1-2</sub> alkoxy or hydroxy.
29. A compound according to claim 28 wherein E has 0-3 substituents, more preferably 0-2 substituents, for example 0 or 1 substituent.
30. A compound according to claim 29 wherein E is unsubstituted.
- 25 31. A compound according to any one of the preceding claims wherein the group E is an aryl or heteroaryl group having five or six members and

containing up to three heteroatoms selected from O, N and S, the group E being represented by the formula:



where \* denotes the point of attachment to the pyrazole group, and "a" denotes the attachment of the group A;

r is 0, 1 or 2;

U is selected from N and CR<sup>12a</sup>; and

V is selected from N and CR<sup>12b</sup>; where R<sup>12a</sup> and R<sup>12b</sup> are the same or different and each is hydrogen or a substituent containing up to ten atoms selected from C, N, O, F, Cl and S provided that the total number of non-hydrogen atoms present in R<sup>12a</sup> and R<sup>12b</sup> together does not exceed ten; or R<sup>12a</sup> and R<sup>12b</sup> together with the carbon atoms to which they are attached form an unsubstituted five or six membered saturated or unsaturated ring containing up to two heteroatoms selected from O and N; and

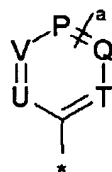
R<sup>10</sup> is selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, mono- or di-C<sub>1-4</sub> hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members; a group R<sup>a</sup>-R<sup>b</sup> wherein R<sup>a</sup> is a bond, O, CO, X<sup>1</sup>C(X<sup>2</sup>), C(X<sup>2</sup>)X<sup>1</sup>, X<sup>1</sup>C(X<sup>2</sup>)X<sup>1</sup>, S, SO, SO<sub>2</sub>, NR<sup>c</sup>, SO<sub>2</sub>NR<sup>c</sup> or NR<sup>c</sup>SO<sub>2</sub>; and R<sup>b</sup> is selected from hydrogen, carbocyclic and heterocyclic groups having from 3 to 12 ring members, and a C<sub>1-8</sub> hydrocarbyl group optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, nitro, carboxy, amino, mono- or di-C<sub>1-4</sub> hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members and wherein one or more carbon atoms of the C<sub>1-8</sub> hydrocarbyl group may optionally be replaced by O, S, SO, SO<sub>2</sub>, NR<sup>c</sup>, X<sup>1</sup>C(X<sup>2</sup>), C(X<sup>2</sup>)X<sup>1</sup> or X<sup>1</sup>C(X<sup>2</sup>)X<sup>1</sup>;

R<sup>c</sup> is selected from hydrogen and C<sub>1-4</sub> hydrocarbyl; and



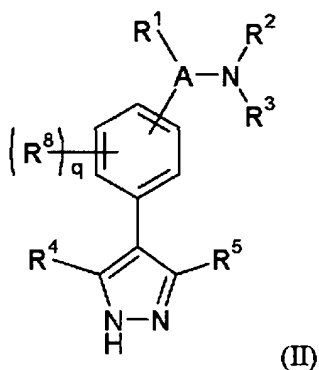
$X^1$  is O, S or  $NR^c$  and  $X^2$  is =O, =S or  $=NR^c$ .

32. A compound according to claim 31 wherein E is represented by the formula:



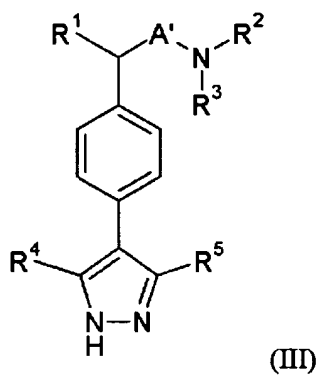
- 5 where P, Q and T are the same or different and are selected from N, CH and  $NCR^{10}$ , provided that the group A is attached to a carbon atom.

33. A compound according to claim 32 wherein the group E is selected from groups B1 to B13 in Table 2.
34. A compound according to claim 24 having the formula (II):



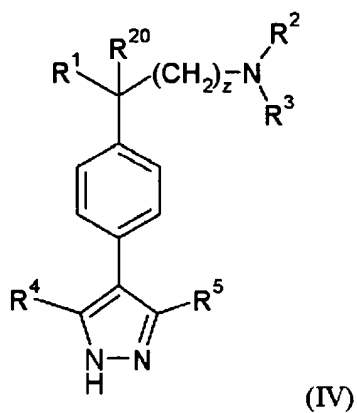
- 10 wherein the group A is attached to the *meta* or *para* position of the benzene ring and q is 0-4.

35. A compound according to claim 34 wherein q is 0, 1 or 2, preferably 0 or 1 and most preferably 0.
36. A compound according to claim 24 having the formula (III):



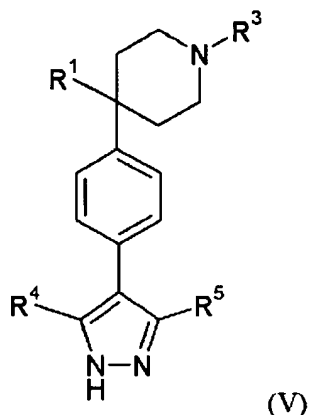
where A' is the residue of the group A and R<sup>1</sup> to R<sup>5</sup> are as defined in any one of the preceding claims.

37. A compound according to claim 36 having the formula (IV):



wherein z is 0, 1 or 2, R<sup>20</sup> is selected from hydrogen, methyl, hydroxy and fluorine, provided that when z is 0, R<sup>20</sup> is other than hydroxy.

38. A compound according to claim 36 having the formula (V):



39. A compound according to claim 38 wherein  $R^3$  is selected from hydrogen and  $C_{1-4}$  hydrocarbyl, for example  $C_{1-4}$  alkyl such as methyl, ethyl and isopropyl, and more preferably  $R^3$  is hydrogen.
- 5 37. A compound according to any one of the preceding claims wherein  $R^1$  is selected from phenyl, naphthyl, thienyl, furan, pyrimidine and pyridine.
38. A compound according to claim 34 wherein  $R^1$  is phenyl.
39. A compound according to any one of the preceding claims wherein  $R^1$  is unsubstituted or bears one or more substituents selected from hydroxy;  $C_{1-4}$  acyloxy; fluorine; chlorine; bromine; trifluoromethyl; cyano;  $CONH_2$ ; nitro;  $C_{1-4}$  hydrocarbyloxy and  $C_{1-4}$  hydrocarbyl each optionally substituted by  $C_{1-2}$  alkoxy, carboxy or hydroxy;  $C_{1-4}$  acylamino; benzoylamino; pyrrolidinocarbonyl; piperidinocarbonyl; morpholinocarbonyl; piperazinocarbonyl; five and six membered heteroaryl and heteroaryloxy groups containing one or two heteroatoms selected from N, O and S; phenyl; phenyl- $C_{1-4}$  alkyl; phenyl- $C_{1-4}$  alkoxy; heteroaryl- $C_{1-4}$  alkyl; heteroaryl- $C_{1-4}$  alkoxy and phenoxy, wherein the heteroaryl, heteroaryloxy, phenyl, phenyl- $C_{1-4}$  alkyl, phenyl- $C_{1-4}$  alkoxy, heteroaryl- $C_{1-4}$  alkyl, heteroaryl- $C_{1-4}$  alkoxy and phenoxy groups are each optionally substituted with 1, 2 or 3 substituents selected from  $C_{1-2}$  acyloxy, fluorine, chlorine, bromine, trifluoromethyl, cyano,  $CONH_2$ ,  $C_{1-2}$  hydrocarbyloxy and  $C_{1-2}$  hydrocarbyl each optionally substituted by methoxy or hydroxy.
- 10
- 15
- 20

40. A compound according to claim 39 wherein  $R^1$  is unsubstituted or is substituted by up to 5 substituents selected from hydroxy;  $C_{1-4}$  acyloxy; fluorine; chlorine; bromine; trifluoromethyl; cyano;  $C_{1-4}$  hydrocarbyloxy and  $C_{1-4}$  hydrocarbyl optionally substituted by  $C_{1-2}$  alkoxy or hydroxy; and five membered heteroaryl groups containing one or two heteroatoms selected from N, O and S, the heteroaryl groups being optionally substituted by one or more  $C_{1-4}$  alkyl substituents.
41. A compound according to claim 40 wherein  $R^1$  is unsubstituted or is substituted by up to 5 substituents selected from hydroxy,  $C_{1-4}$  acyloxy, fluorine, chlorine, bromine, trifluoromethyl, cyano,  $C_{1-4}$  hydrocarbyloxy and  $C_{1-4}$  hydrocarbyl optionally substituted by  $C_{1-2}$  alkoxy or hydroxy.
42. A compound according to claim 40 or claim 41 wherein  $R^1$  is unsubstituted or is substituted by 0, 1, 2, 3 or 4 substituents, preferably 0, 1, 2 or 3, and more preferably 0, 1 or 2 substituents.
43. A compound according to claim 42 wherein the group  $R^1$  has one or two substituents selected from fluorine, chlorine, trifluoromethyl, methyl and methoxy.
44. A compound according to claim 43 wherein  $R^1$  is a mono-chlorophenyl or dichlorophenyl group.
45. A compound according to any one of the preceding claims wherein  $R^4$  is selected from hydrogen and methyl.
46. A compound according to any one of the preceding claims wherein  $R^5$  is selected from hydrogen, fluorine, chlorine, bromine, methyl, ethyl, hydroxyethyl, methoxymethyl, cyano,  $CF_3$ ,  $NH_2$ ,  $NHCOR^{9b}$  and  $NHCONHR^{9b}$  where  $R^{9b}$  is phenyl or benzyl optionally substituted by hydroxy,  $C_{1-4}$  acyloxy, fluorine, chlorine, bromine, trifluoromethyl, cyano,  $C_{1-4}$  hydrocarbyloxy and  $C_{1-4}$  hydrocarbyl optionally substituted by  $C_{1-2}$  alkoxy or hydroxy.

47. A compound according to any one of the preceding claims wherein  $R^2$  and  $R^3$  are independently selected from hydrogen,  $C_{1-4}$  hydrocarbyl and  $C_{1-4}$  acyl.
48. A compound according to claim 47 wherein  $R^2$  and  $R^3$  are independently  
5 selected from hydrogen and methyl.
49. A compound according to claim 48 wherein  $R^2$  and  $R^3$  are both hydrogen.
50. A compound according to any one of the preceding claims having a molecular weight no greater than 1000, more usually less than 750, for example less than 700, or less than 650, or less than 600, or less than 550.
- 10 51. A compound according to claim 50 wherein the molecular weight is less than 525 and, for example, is 500 or less.
52. A compound of the formula (I) which is selected from the group consisting of:  
 2-phenyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;  
 15 3-phenyl-2-[3-(1H-pyrazol-4-yl)-phenyl]-propionitrile;  
 2-[4-(3,5-dimethyl-1H-pyrazol-4-yl)-phenyl]-2-phenyl-ethylamine;  
 2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;  
 2-[3-(3,5-dimethyl-1H-pyrazol-4-yl)-phenyl]-1-phenyl-ethylamine;  
 3-phenyl-2-[3-(1H-pyrazol-4-yl)-phenyl]-propylamine;  
 20 3-phenyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;  
 {3-(4-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;  
 {3-(3,4-difluoro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;  
 25 {3-(3-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;  
 3-(4-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propionamide;  
 3-(4-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;

- 3-(3,4-dichloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;  
 4-(4-chloro-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;  
 4-(4-methoxy-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;  
 4-(4-chloro-phenyl)-1-methyl-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;  
 5 4-phenyl-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;  
 4-[4-(3,5-dimethyl-1H-pyrazol-4-yl)-phenyl]-4-phenyl-piperidine;  
 dimethyl-{3-[4-(1H-pyrazol-4-yl)-phenyl]-3-pyridin-2-yl-propyl}-amine;  
 {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-dimethyl-  
 amine;  
 10 {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;  
 {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine  
 (R);  
 {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine  
 (S);  
 15 4-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-morpholine;  
 4-{4-[1-(4-chloro-phenyl)-2-pyrrolidin-1-yl-ethyl]-phenyl}-1H-pyrazole;  
 {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-isopropyl-  
 amine;  
 dimethyl-{2-phenyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-amine;  
 20 {2,2-bis-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-dimethyl-amine;  
 {2,2-bis-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;  
 2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine (R);  
 2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine (S);  
 2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-acetamide;  
 25 1-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-piperazine;  
 1-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-piperidine;  
 4-{4-[2-azetidin-1-yl-1-(4-chloro-phenyl)-ethyl]-phenyl}-1H-pyrazole;  
 1-phenyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;  
 2-(4-chloro-phenyl)-N-methyl-2-[4-(1H-pyrazol-4-yl)-phenyl]-acetamide;  
 30 N-methyl-2,2-bis-[4-(1H-pyrazol-4-yl)-phenyl]-acetamide;  
 {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;

- {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-ethyl-amine;  
 4-{4-[1-(4-chloro-phenyl)-2-imidazol-1-yl-ethyl]-phenyl}-1H-pyrazole;  
 methyl-{2-(4-phenoxy-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-  
 amine;
- 5 {2-(4-methoxy-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-  
 amine;  
 methyl-{2-[4-(pyrazin-2-yloxy)-phenyl]-2-[4-(1H-pyrazol-4-yl)-phenyl]-  
 ethyl}-amine;
- 10 methyl-{2-phenoxy-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-amine;  
 2-[(4-chloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methoxy}-ethylamine;  
 4-{4-[1-(4-chloro-phenyl)-3-pyrrolidin-1-yl-propyl]-phenyl}-1H-pyrazole;  
 4-{4-[3-azetidin-1-yl-1-(4-chloro-phenyl)-propyl]-phenyl}-1H-pyrazole;  
 methyl-{3-naphthalen-2-yl-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-amine;  
 dimethyl-(4-{3-methylamino-1-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-  
 15 phenyl)-amine;  
 {3-(4-fluoro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-  
 amine;  
 4-{4-[4-(4-chloro-phenyl)-piperidin-4-yl]-phenyl}-1H-pyrazole-3-  
 carbonitrile;
- 20 3-(4-phenoxy-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;  
 1-[(4-chloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methyl]-piperazine;  
 1-methyl-4-{phenyl-[4-(1H-pyrazol-4-yl)-phenyl]-methyl}-[1,4]diazepane;  
 {3-(3-chloro-phenoxy)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-  
 amine;
- 25 methyl-{2-phenyl-2-[6-(1H-pyrazol-4-yl)-pyridin-3-yl]-ethyl}-amine;  
 4-{4-[1-(4-chloro-phenyl)-3-imidazol-1-yl-propyl]-phenyl}-1H-pyrazole;  
 4-[4-(3-imidazol-1-yl-1-phenoxy-propyl)-phenyl]-1H-pyrazole;  
 4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-phenol;  
 1-[(4-chloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methyl]-piperazine;
- 30 {2-(4-fluoro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;  
 {2-(3-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;

- 4-[4-(2-methoxy-ethoxy)-phenyl]-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
- 4-[4-(3-methoxy-propoxy)-phenyl]-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;
- 5 3-(3,4-dichloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propionamide;
- 2-(4-{2-methylamino-1-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-phenoxy)-isonicotinamide;
- {2-(3-chloro-phenoxy)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methylamine;
- 10 3-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamino}-propan-1-ol;
- 2-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamino}-ethanol;
- 3-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamino}-propan-1-ol;
- 15 2-{2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamino}-ethanol;
- {2-(4-Chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-cyclopropylmethylamine;
- 20 methyl-[2-[4-(1H-pyrazol-4-yl)-phenyl]-2-(4-pyridin-3-yl-phenyl)-ethyl]-amine;
- 4-{3-methylamino-1-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-phenol;
- 3-(4-methoxy-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;
- 4-(4-chloro-phenyl)-4-[4-(3-methyl-1H-pyrazol-4-yl)-phenyl]-piperidine;
- 25 2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-morpholine;
- (4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-phenoxy)-acetic acid;
- (4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-phenoxy)-acetic acid, methyl ester;
- 4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-benzonitrile;
- 30 {2-(4-chloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methylamine;

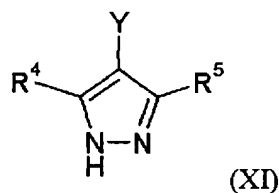
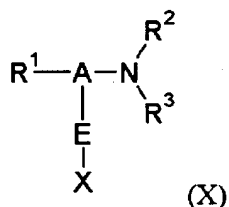


- 1-(4-chloro-phenyl)-2-methylamino-1-[4-(1H-pyrazol-4-yl)-phenyl]-ethanol;  
 2-amino-1-(4-chloro-phenyl)-1-[4-(1H-pyrazol-4-yl)-phenyl]-ethanol;  
 4-(3,4-dichloro-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;  
 5 4-(3-chloro-4-methoxy-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;  
 4-(4-chloro-3-fluoro-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;  
 4-{4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidin-4-yl}-benzoic acid;  
 4-[4-(1H-pyrazol-4-yl)-phenyl]-1,2,3,4,5,6-hexahydro-[4,4']bipyridinyl;  
 3-(3-chloro-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;  
 10 2-methylamino-1-(4-nitro-phenyl)-1-[4-(1H-pyrazol-4-yl)-phenyl]-ethanol;  
 2-(3-chloro-4-methoxy-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;  
 2-(4-chloro-phenyl)-2-fluoro-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;  
 3-(3,4-dichloro-phenyl)-3-[6-(1H-pyrazol-4-yl)-pyridin-3-yl]-propylamine;  
 2-(4-chloro-3-fluoro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;  
 15 4-(2-chloro-3-fluoro-phenyl)-4-[4-(1H-pyrazol-4-yl)-phenyl]-piperidine;  
 1-{(3,4-dichloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methyl}-piperazine;  
 2-(3,4-dichloro-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethylamine;  
 {2-(3-chloro-4-methoxy-phenyl)-2-[4-(1H-pyrazol-4-yl)-phenyl]-ethyl}-methyl-amine;  
 20 4-{4-[2-azetidin-1-yl-1-(4-chloro-phenoxy)-ethyl]-phenyl}-1H-pyrazole;  
 3-(3-chloro-4-methoxy-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propylamine;  
 {3-(3-chloro-4-methoxy-phenyl)-3-[4-(1H-pyrazol-4-yl)-phenyl]-propyl}-methyl-amine;  
 25 1-{(3,4-dichloro-phenyl)-[4-(1H-pyrazol-4-yl)-phenyl]-methyl}-piperazine;  
 and  
 C-(4-chloro-phenyl)-C-[4-(1H-pyrazol-4-yl)-phenyl]-methylamine;  
 and salts, solvates, tautomers and N-oxides thereof.
53. A compound according to any one of the preceding claims in the form of a  
 30 salt, solvate (such as a hydrate), ester or N-oxide.

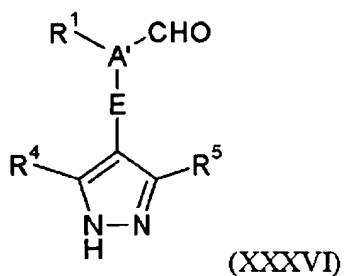
54. A compound as defined in any one of claims 1 to 53 for use in the prophylaxis or treatment of a disease state or condition mediated by protein kinase B.
55. The use of a compound as defined in any one of claims 1 to 53 for the manufacture of a medicament for the prophylaxis or treatment of a disease state or condition mediated by protein kinase B.
56. A method for the prophylaxis or treatment of a disease state or condition mediated by protein kinase B, which method comprises administering to a subject in need thereof a compound as defined in any one of claims 1 to 53.
57. A method for treating a disease or condition comprising or arising from abnormal cell growth in a mammal, which method comprises administering to the mammal a compound as defined in any one of claims 1 to 53 in an amount effective in inhibiting abnormal cell growth.
58. A method for treating a disease or condition comprising or arising from abnormal cell growth in a mammal, the method comprising administering to the mammal a compound as defined in any one of claims 1 to 53 in an amount effective to inhibit PKB activity.
59. A method of inhibiting a protein kinase B, which method comprises contacting the kinase with a kinase-inhibiting compound as defined in any one of claims 1 to 53.
60. A method of modulating a cellular process by inhibiting the activity of a protein kinase B using a compound as defined in any one of claims 1 to 53.
61. A method for treating an immune disorder in a mammal, the method comprising administering to the mammal a compound as defined in any one of claims 1 to 44 in an amount effective to inhibit PKB activity.

62. A compound as defined in any one of claims 1 to 53 for use in the prophylaxis or treatment of a disease state or condition mediated by protein kinase A.
- 5 63. The use of a compound as defined in any one of claims 1 to 53 for the manufacture of a medicament for the prophylaxis or treatment of a disease state or condition mediated by protein kinase A.
64. The use of a compound of the formula (I) as defined in any one of claims 1 to 53 for the manufacture of a medicament for the prophylaxis or treatment of a disease state or condition arising from abnormal cell growth.
- 10 65. The use of a compound of the formula (I) as defined in any one of claims 1 to 53 for the manufacture of a medicament for the prophylaxis or treatment of a disease in which there is a disorder of proliferation, apoptosis or differentiation.
- 15 66. A method for the prophylaxis or treatment of a disease state or condition mediated by protein kinase A, which method comprises administering to a subject in need thereof a compound as defined in any one of claims 1 to 53.
67. A method for treating a disease or condition comprising or arising from abnormal cell growth in a mammal, the method comprising administering to the mammal a compound as defined in any one of claims 1 to 53 in an amount effective to inhibit PKA.
- 20 68. A method of inhibiting a protein kinase A, which method comprises contacting the kinase with a kinase-inhibiting compound as defined in any one of claims 1 to 53.
- 25 69. A method of modulating a cellular process by inhibiting the activity of a protein kinase A using a compound as defined in any one of claims 1 to 44.

70. A method for treating an immune disorder in a mammal, the method comprising administering to the mammal a compound as defined in any one of claims 1 to 53 in an amount effective to inhibit PKA activity.
71. A method of inducing apoptosis in a cancer cell, which method comprises contacting the cancer cell with a compound as defined in any one of claims 1 to 53.
72. A pharmaceutical composition comprising a novel compound as defined in any one of claims 1 to 44 and a pharmaceutically acceptable carrier.
73. A compound as defined in any one of claims 1 to 53 for use in medicine.
74. A process for the preparation of a compound of the formula (I) as defined in any one of claims 1 to 53, which process comprises:
- (a) the reaction of a compound of the formula (X) with a compound of the formula (XI) or an N-protected derivative thereof:



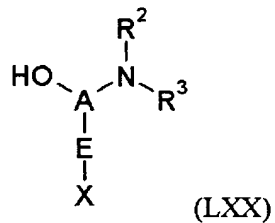
- wherein A, E, and R<sup>1</sup> to R<sup>5</sup> are as defined in any one of the preceding claims, one of the groups X and Y is selected from chlorine, bromine, iodine and trifluoromethanesulphonate, and the other one of the groups X and Y is a boronate residue, for example a boronate ester or boronic acid residue, in the presence of a palladium catalyst and a base;
- (b) the reductive amination of a compound of the formula (XXXVI):



with  $\text{HNR}^2\text{R}^3$  in the presence of a reducing agent; and optionally

- (c) the conversion of one compound of the formula (I) into another compound of the formula (I).

- 5 75. A process according to claim 74, variant (a) wherein the compound of the formula (X) is prepared by the reaction of a compound of the formula (LXX):



with a compound of the formula  $\text{R}^1\text{-H}$  under Friedel Crafts alkylation conditions, for example in the presence of an aluminium, halide (e.g.  $\text{AlCl}_3$ ).